

NOTIFICATION OF ADDENDUM

ADDENDUM NO. 3

DATED 8/03/2012

Control	2734-01-014
Project	STP 2012(571)HES
Highway	FM 2135
County	JOHNSON

Ladies/Gentlemen:

Attached please find an addendum on the above captioned project. Included in the attachment is an addendum notification which details the changes and the respective proposal pages which were added and/or changed.

Except for new bid insert pages, it is unnecessary to return any of the pages attached.

Bid insert pages must be returned with the bid proposal submitted to the Department, unless your firm is submitting a bid using a computer print out. The computer print out must be changed to reflect the new bid item information.

Contractors and material suppliers, etc. who have previously been furnished informational proposals are not being furnished a copy of the addendum. If you have a subcontractor on the above project, please advise them of this addendum. Acknowledgment of this addendum is not requested if your company has been issued a proposal stamped "This Proposal Issued for Informational Purposes."

You are required to acknowledge receipt of this addendum on the Addendum Acknowledgement form contained in your bid proposal by placing a mark in the box next to the respective addendum.

Failure to Acknowledge receipt of this addendum in your bid proposal will result in your bid not being read.

SUBJECT: PLANS AND PROPOSAL ADDENDUMS

PROJECT: STP 2012(571)HES

CONTROL: 2734-01-014

COUNTY: JOHNSON

LETTING: 08/08/2012

REFERENCE NO: 0802

PROPOSAL ADDENDUMS

_ PROPOSAL COVER

X BID INSERTS (SH. NO.: 2-7 - 7-7)

X GENERAL NOTES (SH. NO.: H - L)

X SPEC LIST (SH. NO.: 1-3 - 3-3)

_ SPECIAL PROVISIONS:

ADDED:

DELETED:

_ SPECIAL SPECIFICATIONS:

ADDED:

DELETED:

X OTHER: See changes outlined below

DESCRIPTION OF ABOVE CHANGES

(INCLUDING PLANS SHEET CHANGES)

Bid Inserts:

Sheet 2-7: Item 340-2247 is deleted.

Item 340-2246 is added.

Item 401-2001 is added.

Item 402-2001 is added.

Item 403-2001 is added.

Sheets 2-7 - 7-7 Information may have shifted due to the changes above.

General Notes:

Sheet H: Note to item 464 is revised.

Sheet I: Note for item 530 is added.

Sheets H - L Information may have shifted due to the above change.

Spec List:

Sheet 1-3: Standard specifications 401, 402, and 403 are added.

Sheets 1-3 - 3-3: Information may have shifted due to the above change.

Plan Set:

The following sheets are revised:

5,8,6C-6E,7,7A,30

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	110	2001		EXCAVATION (ROADWAY) DOLLARS and CENTS	CY	4,324.000	1
	132	2008		EMBANKMENT (FINAL)(DENS CONT)(TY D) DOLLARS and CENTS	CY	2,208.000	2
	160	2003		FURNISHING AND PLACING TOPSOIL (4") DOLLARS and CENTS	SY	45,996.000	3
	164	2021	002	CELL FBR MLCH SEED(PERM)(RURAL)(SANDY) DOLLARS and CENTS	SY	45,995.570	4
	164	2029	002	CELL FBR MLCH SEED(TEMP)(WARM) DOLLARS and CENTS	SY	22,997.780	5
	164	2031	002	CELL FBR MLCH SEED(TEMP)(COOL) DOLLARS and CENTS	SY	22,997.780	6
	168	2001		VEGETATIVE WATERING DOLLARS and CENTS	MG	1,610.000	7
	305	2016		SALV, HAUL & STKPL RCL APH PV (3") DOLLARS and CENTS	SY	10,932.000	8
	316	2706	016	ASPH (TIER II) DOLLARS and CENTS	GAL	29,005.000	9
	316	2718	016	AGGR (TIER II) DOLLARS and CENTS	CY	659.000	10

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	340	2011	003	D-GR HMA(METH) TY-B PG64-22 DOLLARS and CENTS	TON	8,506.000	11
	340	2246	003	D-GR HMA (METH) TY-D PG64-22(LEVEL-UP) DOLLARS and CENTS	TON	5,401.000	12
	351	2002		FLEXIBLE PAVEMENT STRUCTURE REPAIR(6") DOLLARS and CENTS	SY	308.000	13
	401	2001		FLOWABLE BACKFILL DOLLARS and CENTS	CY	57.160	14
	402	2001		TRENCH EXCAVATION PROTECTION DOLLARS and CENTS	LF	30.070	15
	403	2001		TEMPORARY SPL SHORING DOLLARS and CENTS	SF	896.000	16
	432	2071		RIPRAP (STONE COMMON)(DRY)(24 IN) DOLLARS and CENTS	CY	167.000	17
	460	2003		CMP (GAL STL 18 IN) DOLLARS and CENTS	LF	60.000	18
	460	2004		CMP (GAL STL 24 IN) DOLLARS and CENTS	LF	39.000	19
	464	2003	006	RC PIPE (CL III)(18 IN) DOLLARS and CENTS	LF	87.790	20

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	464	2005	006	RC PIPE (CL III)(24 IN) DOLLARS CENTS and	LF	258.330	21
	464	2007	006	RC PIPE (CL III)(30 IN) DOLLARS CENTS and	LF	28.000	22
	464	2010	006	RC PIPE (CL III)(42 IN) DOLLARS CENTS and	LF	36.000	23
	467	2211		SET (TY II)(24 IN)(RCP)(3:1)(C) DOLLARS CENTS and	EA	1.000	24
	467	2222		SET (TY II)(18 IN)(RCP)(4:1)(C) DOLLARS CENTS and	EA	12.000	25
	467	2224		SET (TY II)(24 IN)(RCP)(4:1)(C) DOLLARS CENTS and	EA	23.000	26
	467	2225		SET (TY II)(30 IN)(RCP)(4:1)(C) DOLLARS CENTS and	EA	8.000	27
	467	2228		SET (TY II)(42 IN)(RCP)(4:1)(C) DOLLARS CENTS and	EA	8.000	28
	467	2285		SET (TY II)(15 IN)(RCP)(6:1)(P) DOLLARS CENTS and	EA	1.000	29
	467	2286		SET (TY II)(18 IN)(RCP)(6:1)(P) DOLLARS CENTS and	EA	62.000	30
	467	2288		SET (TY II)(24 IN)(RCP)(6:1)(P) DOLLARS CENTS and	EA	34.000	31

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	467	2290		SET (TY II)(30 IN)(RCP)(6:1)(P) DOLLARS and CENTS	EA	6.000	32
	467	2301		SET (TY II)(18 IN)(CMP)(6:1)(P) DOLLARS and CENTS	EA	14.000	33
	467	2302		SET (TY II)(21 IN)(CMP)(6:1)(P) DOLLARS and CENTS	EA	3.000	34
	467	2303		SET (TY II)(24 IN)(CMP)(6:1)(P) DOLLARS and CENTS	EA	10.000	35
	467	2572		SET (REMOV & REINSTALL) DOLLARS and CENTS	EA	8.000	36
	496	2004		REMOV STR (SET) DOLLARS and CENTS	EA	6.000	37
	496	2006		REMOV STR (HEADWALL) DOLLARS and CENTS	EA	10.000	38
	496	2007		REMOV STR (PIPE) DOLLARS and CENTS	LF	127.300	39
	500	2001	005	MOBILIZATION DOLLARS and CENTS	LS	1.000	40
	502	2001	033	BARRICADES, SIGNS AND TRAFFIC HAN- DLING DOLLARS and CENTS	MO	9.000	41

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	506	2002	010	ROCK FILTER DAMS (INSTALL) (TY 2) DOLLARS and CENTS	LF	85.000	42
	506	2009	010	ROCK FILTER DAMS (REMOVE) DOLLARS and CENTS	LF	85.000	43
	506	2025	010	EXCAVATOR WORK (EROSION & SEDM CONT) DOLLARS and CENTS	HR	20.000	44
	506	2034	010	TEMPORARY SEDIMENT CONTROL FENCE DOLLARS and CENTS	LF	6,290.000	45
	530	2005	004	INTERSECTIONS (ACP) DOLLARS and CENTS	SY	545.640	46
	530	2010	004	DRIVEWAYS (CONC) DOLLARS and CENTS	SY	224.220	47
	530	2011	004	DRIVEWAYS (ACP) DOLLARS and CENTS	SY	255.610	48
	530	2017	004	TURNOUTS (ACP) DOLLARS and CENTS	SY	1,258.250	49
	530	2029	004	DRIVEWAYS (OTHER) DOLLARS and CENTS	SY	1,643.040	50
	560	2006	001	MAILBOX INSTALL-S (RR-POST) TY 4 FND- TB DOLLARS and CENTS	EA	48.000	51

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	560	2008	001	MAILBOX INSTALL-M (TWW-POST)TY 4 FND-TB DOLLARS CENTS and	EA	9.000	52
	560	2025	001	MAILBOX INSTALL-D (RR-POST) TY 4 FND-TB DOLLARS CENTS and	EA	13.000	53
	644	2056		RELOCATE SM RD SN SUP & AM TY 10BWG DOLLARS CENTS and	EA	24.000	54
	658	2337		INSTL OM ASSM (OM-2Z)(FLX)GND(BI) DOLLARS CENTS and	EA	42.000	55
	662	2032		WK ZN PAV MRK NON-REMOV (Y) 4" (SLD) DOLLARS CENTS and	LF	222,240.000	56
	662	2115		WK ZN PAV MRK SHT TERM (TAB) TY Y-2 DOLLARS CENTS and	EA	11,112.000	57
	666	2035		REFL PAV MRK TY I (W) 8" (SLD)(090MIL) DOLLARS CENTS and	LF	150.000	58
	666	2053		REFL PAV MRK TY I (W) (ARROW) (090MIL) DOLLARS CENTS and	EA	2.000	59
	666	2095		REFL PAV MRK TY I (W) (WORD) (090MIL) DOLLARS CENTS and	EA	4.000	60
	666	2131		REFL PAV MRK TY I (Y) 24"(SLD)(090MIL) DOLLARS CENTS and	LF	11.000	61

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	672	2012	034	REFL PAV MRKR TY I-C DOLLARS and CENTS	EA	13.000	62
	672	2015	034	REFL PAV MRKR TY II-A-A DOLLARS and CENTS	EA	647.000	63
	685	2005	014	RLCT RDSD FLASH BEACON ASSM(SOLAR PWRD) DOLLARS and CENTS	EA	2.000	64
	3224	2042		D-GR HMA(QCQA) TY-D SAC-B PG70-22 DOLLARS and CENTS	TON	10,853.000	65
	5049	2003		BIODGRD EROSION CONTROL LOGS (12" DIA) DOLLARS and CENTS	LF	210.000	66
	6834	2001		PORTABLE CHANGEABLE MESSAGE SIGN DOLLARS and CENTS	DAY	384.000	67
	8251	2005	005	RE PM W/RET REQ TY I(W)4"(SLD)(090MIL) DOLLARS and CENTS	LF	55,334.000	68
	8251	2014	005	RE PM W/RET REQ TY I(Y)4"(BRK)(090MIL) DOLLARS and CENTS	LF	5,320.000	69
	8251	2017	005	RE PM W/RET REQ TY I(Y)4"(SLD)(090MIL) DOLLARS and CENTS	LF	23,300.000	70

Specification Data**Basis of Estimate**

Item	Description	Rate	Unit
166	Fert (16-8-8)	600 lb/acre**	Ton
168	Vegetative Watering	169,400 gal/acre	MG
210	Roll (Med Pneum Tire)(TYB) Surf Treat	1 Hr/2,000 SY/crse**	Hr
340	Hot Mix (All Types)	115 lb/SY/in	Ton
3224	Hot Mix (TY D)	115 lb/SY/in	Ton

** Non-Pay, for Contractor's Information Only.

Surface Treatment Data:**One Course on Existing pavement (Seal Coat)**

Asph Type See Seal Coat Material Selection Table
Rate 0.40 gal/SY

Aggr Type See Seal Coat Material Selection Table
Grade See Seal Coat Material Selection Table
Rate 1 CY/110 SY

Note: The rates of application of asphalt and aggregate are for estimating purposes only and may be varied as directed by the Engineer.

Special Notes:

Calculating, Recording and Reporting Test Data - Use appropriate TxDOT Excel templates to calculate and record all test data. These forms are available on the TxDOT website at www.dot.state.tx.us/forms/construction.htm under the "SiteManager" heading. Submit test results within 24 hours of test completion by email or CD.

Do not work between the southern limit of the school zone and FM 4 before 8:30 AM.

Nighttime Work. Perform no nighttime work on this project except when directed or allowed by the Engineer in writing.

Verify the location of all underground facilities prior to starting work.

For dimensions of R.O.W. not shown on the plans, see the link at http://www.txdot.gov/business/road_construction/row_map.htm or the R.O.W. map on file at the TxDOT District Office.

Remove all existing fences within the right of way and remove and replace all existing fences within easements where such fences conflict with the work. Protect the remaining fence from damage due to slacking. Erect temporary fencing in the easement areas as necessary to secure

the property. Provide at least one week notice to the property owner prior to removing or moving the fence. Restore permanent fencing to an equal or better condition.

Provide all-weather surface for temporary ingress and egress to adjacent property, as directed. Materials, labor, equipment and incidentals necessary to provide temporary ingress and egress will not be paid for directly, but will be subsidiary to the various bid items.

In those instances where necessary, the governing slopes indicated herein may be varied from the limits shown, to the extent approved.

On superelevated curves the shoulders shall have the same cross-slope as the pavement, unless otherwise indicated.

On superelevated curves where the grade line is in a sag or on flat grades, overlay the shoulders to the extent necessary to prevent trapping of water on the high side.

Locations and lengths of all private entrances are approximate only. The actual locations, lengths, lines, and grades are to be established in the field.

Take care that existing curb and curb and gutter is not discolored or damaged during construction operations. In the event of discoloration or damage, clean or repair as directed.

Remove the grass from the crown of shoulders or pavement edges by blading or other approved methods. Payment for this work will not be made directly but shall be considered subsidiary to the various items of the contract.

Provide temporary drain openings at all low points or other drainage structures, as required, at the Contractor's expense.

Remove any obstructions to existing drainage due to the contractor's operations, as required, at the Contractor's expense.

Apply all erosion control measures as shown on the plans or as directed, immediately following construction of channels to their required line, grade and section.

Item 5. Control of the Work

Perform construction surveying to record and re-establish the road profile, cross slopes and super-elevations in accordance with Article 5.6.C.

Prior to contract letting, bidders may obtain a free computer diskette or a computerized transfer of files (from the Engineer's office) that contains the earthwork information in ASCII format, plain text files. If copies of the actual cross-sections are requested, in addition to, or instead of, the diskette, they will be available at the Engineers office for borrowing by copying companies for the purpose of making copies for the bidder, at the bidder's expense.

Item 7. Legal Relations and Responsibilities

Do not initiate activities in a project specific location (PSL) associated with a U.S. Army Corps of Engineers (USACE) permit area that have not been previously evaluated by the USACE as part of the permit review of this project. Such activities include, but are not limited to, haul

roads, equipment staging areas, borrow and disposal sites. “Associated” as defined here means materials are delivered to or from the PSL. The permit area includes all waters of the U.S. or associated wetlands affected by activities associated with this project. Special restrictions may be required for such work. The contractor shall be responsible for any and all consultations with the USACE regarding activities, including project specific locations (PSLs) that have not been previously evaluated by the USACE. Provide the Department with a copy of all consultation(s) or approval(s) from the USACE prior to initiating activities.

The Contractor may proceed with activities in PSLs that do not affect a USACE permit area if a self determination has been made that the PSL is non jurisdictional or proper USACE clearances have been obtained in jurisdictional areas or have been previously evaluated by the USACE as part of the permit review of this project. The contractor is solely responsible for documenting any determination(s) that their activities do not affect a USACE permit area. Maintain copies of their determination(s) for review by the Department or any regulatory agency.

Document and coordinate with the USACE, if required, prior to any excavation hauled from or embankment hauled into a USACE permit area by either (1) or (2) below.

Restricted Use of Materials for Previously Evaluated Permit Areas.

Document both the project specific location (PSL) and its authorization. Maintain copies for review by the Department or any regulatory agency when an area within the project limits has been evaluated by the USACE as part of the permit process for this project:

Suitable excavation of required material in the areas shown on the plans and cross sections as specified in Item 110 is used for permanent or temporary fill (Item 132, Embankment) within a USACE permit area;

Suitable embankment (Item 132) from within the USACE permit area is used as fill within a USACE evaluated area; and,

Unsuitable excavation or excess excavation [“Waste”] (Item 110) that is disposed of at a location approved by the Engineer within a USACE evaluated area.

Contractor Materials from Areas Other than Previously Evaluated Areas.

Provide the Department with a copy of all USACE coordination or approval(s) prior to initiating any activities for an area within the project limits that has not been evaluated by the USACE or for any off right of way locations used for the following, but not limited to, haul roads, equipment staging areas, borrow and disposal sites:

Item 132, Embankment, used for temporary or permanent fill within a USACE permit area; and,

Unsuitable excavation or excess excavation [“Waste”] (Item 110, Excavation) that is disposed of outside a USACE evaluated area.

The total area disturbed for this project is 9.503 acres. The disturbed area in this project, all project locations in the Contract, and the Contractor project specific locations (PSLs), within 1

mile of the project limits, for the Contract will further establish the authorization requirements for storm water discharges. The Department will obtain an authorization to discharge storm water from the Texas Commission on Environmental Quality (TCEQ) for the construction activities shown on the plans. The Contractor is to obtain required authorization from the TCEQ for Contractor PSLs for construction support activities on or off the ROW. When the total area disturbed in the Contract and PSLs within 1 mile of the project limits exceeds 5 acres, provide a copy of the Contractor NOI for PSLs on the ROW to the Engineer and to the local government that operates a separate storm sewer system.

Item 8. Prosecution and Progress

Working days will be computed and charged in accordance with Article 8.3.A.1 Five-Day Workweek. Do not work in the school zone when lights are flashing.

Item 100. Preparing Right of Way

Measurement for this item shall be along the centerline of the project with the limits of measurements as shown on the plans.

Item 110. Excavation

Review proposed waste sites to determine if any site is located in a "Base Floodplain" or "Floodway" as defined by the Federal Emergency Management Agency (FEMA).

If waste material from this project is placed in a base floodplain as defined by FEMA, a permit will have to be obtained from the local community responsible for enforcing National Flood Insurance Program (NFIP) regulations. The Contractor is responsible for ensuring that the owner of the property receiving the waste has obtained the necessary permit.

Item 160. Topsoil

Salvage approximately 5,060 cubic yards of topsoil from areas shown on plans. Maximum salvage depth is 4 in. Place a 4 in. layer of Topsoil to designated areas.

Item 164. Seeding for Erosion Control

Apply seeding required between December 1 and January 31 using seed types and mixtures as shown in Item 164.2.A, Table 3. If, in the opinion of the Engineer, this does not provide an effective vegetative cover, apply "straw or hay mulch" as specified in Item 164.3.E as soon as possible. After February 1 apply warm season seeding in order to establish a permanent protective vegetative cover.

Item 166. Fertilizer

Fertilize all areas of project to be seeded or sodded.

County: Johnson

Control: 2734-01-014

Highway: FM 2135

Item 168. Vegetative Watering

Furnish and install an approved rain gauge at the project site, as directed. Furnishing and installation of the rain gauge will not be paid for directly, but will be considered subsidiary to Item 168.

Apply vegetative watering for an establishment period of thirteen weeks following application of seed or installation of sod, at a rate of ½" of water depth per week (approximately 13,030 gallons per acre). During the first four weeks after seeding, apply watering twice per week, on non-consecutive days, at half the weekly application rate. For the remainder of the establishment period, apply vegetative watering once per week during the months of January through June or September through December, at the weekly application rate; apply watering twice per week, on non-consecutive days during the months of July and August, at one-half the weekly application rate.

Average weekly rainfall rates for the Fort Worth District

January – 0.39"	April – 0.86"	July – 0.48"	October – 0.68"
February – 0.46"	May – 1.00"	August – 0.47"	November – 0.46"
March – 0.48"	June – 0.63"	September – 0.74"	December – 0.37"

Item 247. Flexible Base

(TY A, GR 4) Furnish crushed stone, gravel, or crushed gravel aggregate conforming to the following requirements:

Retained on Sieve Size	Percent (%) by Weight
1-3/4 in.	0 – 5
7/8 in.	5 – 35
No. 4	40 – 75
No. 40	65 – 85
 Plasticity Index (PI)	 12 max., 4 min.
Liquid Limit	45 max.
Wet Ball Mill	50 max.
Wet Ball Mill, %	20 max.
Increase Passing the No. 40	

Do not add field sand to modify the final material to meet the requirements.

Item 301. Asphalt Antistripping Agent

Furnish a liquid antistripping agent unless directed.

Item 305. Salvaging, Hauling, and Stockpiling Reclaimable Asphalt Concrete

Stockpile all rap salvaged and not used for this project on the FM 2135 right of way north of SH 171 as directed.

Build stockpiles between 10 and 15 feet in height with layers approximately 2 feet in depth.

Item 316. Surface Treatments

Asphalt storage tanks may be used.

Remove vegetation and blade pavement edges as directed.

Furnish aggregate meeting a Surface Aggregate Classification rating of “B” for the roadways in this project.

Provide a transverse variance rate of 10%. Provide an equal amount of asphaltic material between the wheel paths as outside the wheelpaths.

Provide a minimum of 3 pneumatic rollers as specified under Article 316.3.C.

The asphalt application season for this project is May 1 to September 30.

Item 340. Dense Graded Hot Mix Asphalt (Method)

RAP aggregate must meet the requirements of Table 1.

RAP from this project is available to Contractor.

Do not use mineral fillers.

Dilution of tack coat is not allowed.

Target laboratory molded density is 97%.

Provide a PG70-22 asphalt for the level-up course.

Provide a PG64-22 asphalt for the base course.

Furnish a CSS-1P with greater than 50% asphalt residue for the tack coat on this project.

If the Contractor elects to use Warm Mix Asphalt (WMA) use the following notes.

Notify the District Pavement Engineer.

Use an Evothrm DAT Warm Mix Asphalt (WMA), a SASOBIT WMA, a Rediset WMX WMA, or an Advera WMA product additive for all mix applications. Delivery temperature shall be a maximum of 235° F. Delivery and roll out temperatures will be modified by the supplier and accepted by the engineer. All work related to WMA product additives is subsidiary to this item.

To produce an Evothrm WMA, use Evothrm DAT or Evothrm3G is metered into the asphalt between 0.5% and 0.7% by total asphalt weight. Evothrm DAT, a chemical solution, is metered into the asphalt between 5.0% and u.0% by total asphalt weight.

To produce a SASOBIT WMA, the mix production facility will receive SASOBIT from the solution supplier. SASOBIT is metered into the asphalt line at a rate of 1.5% by weight of total binder content.

County: Johnson

Control: 2734-01-014

Highway: FM 2135

To produce a Rediset WMX WMA, preblend with the asphalt or dose into the mixing drum via the RAP belt or port. Use 1.5% or 2.0% by weight of asphalt dependent upon the mix type.

To produce an Advera WMA, the mix production facility will receive Advera from the solution supplier. Advera is added into the mixing drum at a rate of 0.25% by weight of mix to create a foaming effect in the binder. Advera WMA is a synthetic zeolite (hydrated aluminosilicate, containing 18-21% water).

An authorized representative of the WMA product additive supplier shall be present onsite during the first day of asphalt placement.

Use the boil test, Test Method TEX-530-C, and provide only mixes that produce zero percent (0%) stripping for design verification and during production.

Include the approved mix design number on each delivery ticket.

Place mixture when the roadway surface temperature is equal to or higher than the temperatures listed in Table 10 unless otherwise approved or shown on the plans. Measure the roadway surface temperature with a handheld infrared thermometer. The Engineer may allow mixture placement to begin prior to the roadway surface reaching the required temperature requirements if conditions are such that the roadway surface will reach the required temperature within 2 hrs. of beginning placement operations. Unless otherwise shown on the plans, place mixtures only when weather conditions and moisture conditions of the roadway surface are suitable in the opinion of the Engineer.

Table 10
Minimum Pavement Surface Temperatures

High Temperature Binder Grade	Minimum Pavement Surface Temperatures in Degrees Fahrenheit	
	Subsurface Layers or Night Paving Operations	Surface Layers Placed in Daylight Operations
PG 64	45	50
PG 70	55 ¹	60 ¹
PG 76	60 ¹	60 ¹
PG 76	65 ¹	70 ¹
Asphalt Rubber (A-R)	65 ¹	70 ¹

Note 1: Contractors may pave at temperatures 10°F lower than the values shown in Table 10 when utilizing a paving process or equipment that eliminates thermal segregation. In which cases, the contractor must use either an infrared bar attached to the paver, or a hand held thermal camera, or a hand held infrared thermometer operated in accordance with Test Method 244-F to demonstrate to the satisfaction of the engineer that the uncompacted mat has no more than 10°F of thermal segregation.

Item 360. Concrete Pavement

The provisions of Article 360.6.B will not be a requirement and the pavement will not be cored. Include the approved mix design number on each delivery ticket.

Item 421. Hydraulic Cement Concrete

For Class P and S Concrete Only: For concrete plants equipped with 2 aggregate bins and/or no calibrated metering system, blend manufactured and natural sand at the aggregate source only. For concrete plants equipped with a minimum of 3 bins and a calibrated metering system, blending of the separate sands on-site is permitted to meet gradation and AIR requirements.

The strength testing equipment for concrete will be capable of producing an electronic printout of the test results.

Air entrainment requirements are waived for all classes of concrete except all Class S and all Class P Concrete.

Concrete will not be rejected for low air content. Adjustment to the dosage of air entrainment will be as directed or allowed by the Engineer.

Include the approved mix design number on each delivery ticket.

Item 464. Reinforced Concrete Pipe

All bends and connections in pipe shall be prefabricated unless otherwise shown in the plans. Pushing or jacking pipe is subsidiary to item 464, Reinforced Concrete Pipe. Excavation, and backfill for the purposes of pushing or jacking pipe is subsidiary to Item 464, Reinforced Concrete Pipe.

Item 502. Barricades, Signs, and Traffic Handling

Do not remove existing signs as long as they do not interfere with construction and they do not conflict with the traffic control plan.

When traffic is obstructed, arrange warning devices in accordance with arrangements indicated in the latest revision of the "Texas Manual on Uniform Traffic Control Devices".

Cover or remove any work zone signs when work or condition referenced is not occurring.

Item 504. Field Office and Laboratory

Furnish the following structures for this project:

Type	No.
Field Lab (Ty. A	1
Field Lab(Ty. D)	1

Item 506. Temporary Erosion, Sedimentation, and Environmental Controls

Remove accumulated sediment and/or replace SW3P controls when the capacity has been reduced by 50% or when the depth of sediment at the control structure exceeds one foot.

Item 530. Intersections, Driveways and, Turnouts

The pavement section for turnouts is 2 inches of TY-D SAC-B PG70-22, over 4 inches of TY-B PG64-22 on proof rolled soil.

Item 560. Mailbox Assemblies

Provide Recycled Rubber Flexible Post (TYPE 4 SUPPORT/FOUNDATION) with the corresponding bracket and adapter plate for flexible post for all single and double mailbox assemblies in this project.

Item 585. Ride Quality for Pavement Surfaces

Use Surface Test Type B pay adjustment schedule 3 to evaluate ride quality of the travel lanes in accordance with Item 585, "Ride Quality for Pavement Surfaces."

Item 644. Small Roadside Sign Supports and Assemblies

Supply shop drawings for all signs requiring fabrication in this contract. Fabricate and install signs only after approval of shop drawings by Fort Worth District Traffic Office.

Item 658. Delineators and Object Markers

Only Recycled Rubber posts will be accepted on this project.

Items 666. Reflectorized Pavement Markings

Where replication of existing pavement markings and markers is required, no layout or plan may be provided. Prior to removal or demolition of pavement markings, record the beginning and ending locations of each type of pavement marking to be replaced. Use the recorded information to establish guides as required by Article 666.4.A of the Standard Specifications to re-create the original markings on the final pavement surface.

Item 3224. Dense-Graded Hot Mix Asphalt (QC/QA)

RAP aggregate must meet the requirements of Table 1.

RAP from this project is available to Contractor.

Target laboratory molded density is 97%.

Provide aggregate with a Surface Aggregate Classification (SAC) value of B for the surface course of the travel lanes.

Provide PG70-22 asphalt for surface course when using fractionated RAP.

Provide a PG70-22 asphalt for the surface course.

Provide the PG70-22 asphalt with any of the following modification alternatives:

PG64-22 modified with SBS at the refinery

PG64-22 modified with SBR Latex at the Hot Mix Plant.

AC-10 modified with SBR Latex at the Hot Mix Plant.

PG64-22 modified with Crumb Rubber and Vestenamer (TOR) at the Hot Mix Plant.

When modified at the Hot Mix Plant, provide the PG 64-22 or AC-10 refinery certification.

Provide a PG70-22 asphalt for the level-up course.

Provide a PG64-22 asphalt for the base course.

The Hamburg Wheel Test Requirements per Table 10 are reduced by 5,000 passes for each binder grade.

Furnish a CSS-1P with greater than 50% asphalt residue for the tack coat on this project. Dilution of tack coat is not allowed.

The following notes apply to this project when use of Warm Mix Asphalt (WMA) is required or elected by the contractor.

Notify the District Pavement Engineer.

Use an Evotherm DAT Warm Mix Asphalt (WMA), a SASOBIT WMA, a Rediset WMX WMA, or an Advera WMA product additive for all mix applications. Add the selected WMA product additive using a meter, approved by the Engineer, that will provide the appropriate amount to the mix and will provide a hard or electronic copy of the added quantities. Delivery temperature shall be a maximum of 235° F. Delivery and roll out temperatures will be modified by the supplier and accepted by the Engineer. All work related to WMA product additives is subsidiary to this item.

To produce an Evotherm WMA, use Evotherm DAT or Evotherm 3G. Evotherm 3G is metered into the asphalt between 0.5% and 0.7% by total asphalt weight. Evotherm DAT, a chemical solution, is metered into the asphalt between 5.0% and 7.0% by total asphalt weight. Evotherm DAT Concentrate contains approximately 15% Evotherm chemistry and 85% water. The Evotherm DAT supplier will provide the delivery pump, if necessary.

To produce a SASOBIT WMA, the mix production facility will receive SASOBIT from the solution supplier. SASOBIT is metered into the asphalt line at a rate of 1.5% by weight of total binder content.

To produce a Rediset WMX WMA, preblend with the asphalt or dose into the mixing drum via the RAP belt or port. Use 1.5% or 2.0% by weight of asphalt dependent upon the mix type.

To produce an Advera WMA, the mix production facility will receive Advera from the solution supplier. Advera is added into the mixing drum at a rate of 0.25% by weight of

County: Johnson

Control: 2734-01-014

Highway: FM 2135

mix to create a foaming effect in the binder. Advera WMA is a synthetic zeolite (hydrated aluminosilicate, containing 18-21% water).

An authorized representative of the WMA product additive supplier shall be present onsite during the first day of asphalt placement.

Use the boil test, test method TEX-530-C, and provide only mixes that produce zero percent (0%) stripping for design verification and during production.

Include the approved mix design number on each delivery ticket.

Place mixture when the roadway surface temperature is equal to or higher than the temperatures listed in Table 11A unless otherwise approved or shown on the plans. Measure the roadway surface temperature with a handheld infrared thermometer. The Engineer may allow mixture placement to begin prior to the roadway surface reaching the required temperature requirements if conditions are such that the roadway surface will reach the required temperature within 2 hrs. of beginning placement operations. Unless otherwise shown on the plans, place mixtures only when weather conditions and moisture conditions of the roadway surface are suitable in the opinion of the Engineer.

Table 11A
Minimum Pavement Surface Temperatures

High Temperature Binder Grade	Minimum Pavement Surface Temperatures in Degrees Fahrenheit	
	Subsurface Layers or Night Paving Operations	Surface Layers Placed in Daylight Operations
PG 64	45	50
PG 70	55 ¹	60 ¹
PG 76	60 ¹	60 ¹
PG 76	65 ¹	70 ¹
Asphalt Rubber (A-R)	65 ¹	70 ¹

Note 1: Contractors may pave at temperatures 10°F lower than the values shown in Table 11A when utilizing a paving process or equipment that eliminates thermal segregation. In which cases, the contractor must use either an infrared bar attached to the paver, or a hand held thermal camera, or a hand held infrared thermometer operated in accordance with Test Method 244-F to demonstrate to the satisfaction of the engineer that the uncompacted mat has no more than 10°F of thermal segregation.

Item 6834. Portable Changeable Message Signs

Provide portable changeable message signs and arrow panels with a photoelectric device to allow for automatic dimming of operations to approximately 50% of their normal brightness when

ambient light drops to approximately five footcandles, and then increase back again for daytime operations.

2 electronic portable changeable message sign unit(s) will be required. Individual or collective use of signs will be required by Engineer when deemed necessary to supplement the traffic control plan.

Program each sign in its permanent memory the following 15 messages:

1. Exit Closed Ahead
2. Use Other Routes
3. Right Lane
4. Left Lane
5. Closed Ahead
6. Two Lane
7. Detour Ahead
8. Thru Traffic
9. Prepare To Stop
10. Merging Traffic
11. Expect 15 Minute Delay
12. Max Speed ** MPH
13. Merge Right
14. Merge Left
15. No Exit Next ** Miles

Item 8251. Reflectorized Pavement Markings with Retroreflective Requirements

Collection of retro-reflectivity readings using a mobile retro-reflectometer is the preferred method. If retro-reflectivity readings are collected using a portable/handheld unit, then measurement is defined as a collective average of at least 20 readings taken along a 200-foot test section. A minimum of three measurements will be required per mile of roadway.

Measurements collected on a centerline stripe will be averaged separately for stripe in each direction of travel. A TxDOT inspector must witness the calibration and collection of all retro-reflectivity data.

Where replication of existing pavement markings and markers is required, no layout or plan may be provided. Prior to removal or demolition of pavement markings, record the beginning and ending locations of each type of pavement marking to be replaced. Use the recorded information to establish guides as required by Article 8251.4.A of the Standard Specifications to re-create the original markings on the final pavement surface.

CONTROL : 2734-01-014
PROJECT : STP 2012(571)HES
HIGHWAY : FM 2135
COUNTY : JOHNSON

TEXAS DEPARTMENT OF TRANSPORTATION

GOVERNING SPECIFICATIONS AND SPECIAL PROVISIONS

ALL SPECIFICATIONS AND SPECIAL PROVISIONS APPLICABLE TO THIS PROJECT
ARE IDENTIFIED AS FOLLOWS:

STANDARD SPECIFICATIONS: ADOPTED BY THE TEXAS DEPARTMENT OF
----- TRANSPORTATION JUNE 1, 2004.
STANDARD SPECIFICATIONS ARE INCORPORATED
INTO THE CONTRACT BY REFERENCE.

ITEMS 1 TO 9 INCL., GENERAL REQUIREMENTS AND COVENANTS
ITEM 110 EXCAVATION (132)
ITEM 132 EMBANKMENT (100)(204)(210)(216)(400)
ITEM 160 TOPSOIL
ITEM 164 SEEDING FOR EROSION CONTROL (162)(166)(168)
ITEM 168 VEGETATIVE WATERING
ITEM 305 SALVAGING, HAULING, AND STOCKPILING RECLAIMABLE ASPHALT
PAVEMENT
ITEM 316 SURFACE TREATMENTS (210)(300)(302)
ITEM 340 DENSE-GRADED HOT-MIX ASPHALT (METHOD) (210)(300)(301)
(320)(520)(585)
ITEM 351 FLEXIBLE PAVEMENT STRUCTURE REPAIR (132)(204)(247)(260)
(263)(275)(276)(292)(310)(316)(330)(334)(340)
ITEM 401 FLOWABLE BACKFILL (421)
ITEM 402 TRENCH EXCAVATION PROTECTION
ITEM 403 TEMPORARY SPECIAL SHORING (423)
ITEM 432 RIPRAP (247)(420)(421)(427)(431)(440)
ITEM 460 CORRUGATED METAL PIPE (400)(445)(476)
ITEM 464 REINFORCED CONCRETE PIPE (400)(476)
ITEM 467 SAFETY END TREATMENT (400)(420)(421)(430)(432)(440)(445)
(460)(464)
ITEM 496 REMOVING STRUCTURES (430)
ITEM 500 MOBILIZATION
ITEM 502 BARRICADES, SIGNS, AND TRAFFIC HANDLING
ITEM 504 FIELD OFFICE AND LABORATORY
ITEM 506 TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL
CONTROLS (432)(556)
ITEM 530 INTERSECTIONS, DRIVEWAYS, AND TURNOUTS (247)(260)(263)
(275)(276)(292)(316)(330)(334)(340)(360)(421)(440)
ITEM 560 MAILBOX ASSEMBLIES

ITEM 644 SMALL ROADSIDE SIGN SUPPORTS AND ASSEMBLIES (421)(440)
 (441)(442)(445)(634)(636)(643)(656)
 ITEM 658 DELINEATOR AND OBJECT MARKER ASSEMBLIES (445)
 ITEM 662 WORK ZONE PAVEMENT MARKINGS (666)(668)(672)(677)
 ITEM 666 REFLECTORIZED PAVEMENT MARKINGS (316)(318)(662)(677)(678)
 ITEM 672 RAISED PAVEMENT MARKERS (677)(678)
 ITEM 685 ROADSIDE FLASHING BEACON ASSEMBLIES (441)(442)(445)(449)
 (656)(687)

SPECIAL PROVISIONS: SPECIAL PROVISIONS WILL GOVERN AND TAKE
 ----- PRECEDENCE OVER THE SPECIFICATIONS ENUMERATED
 HEREON WHEREVER IN CONFLICT THEREWITH.

REQUIRED CONTRACT PROVISIONS, FEDERAL-AID CONSTRUCTION CONTRACTS
 (FORM FHWA 1273, MARCH, 1994)

WAGE RATES

SPECIAL PROVISION "NOTICE TO ALL BIDDERS" (000--003)
 SPECIAL PROVISION "NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO
 ENSURE EQUAL EMPLOYMENT OPPORTUNITY" (000--004)
 SPECIAL PROVISION "STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
 CONSTRUCTION CONTRACT SPECIFICATIONS" (000--006)
 SPECIAL PROVISION "CERTIFICATION OF NONDISCRIMINATION IN EMPLOYMENT"
 (000--009)
 SPECIAL PROVISION "DEPARTMENT DIVISION MAILING AND PHYSICAL ADDRESS"
 (000--011)
 SPECIAL PROVISION "ON-THE-JOB TRAINING PROGRAM" (000--1676)
 SPECIAL PROVISION "DISADVANTAGED BUSINESS ENTERPRISE IN FEDERAL AID
 CONTRACTS" (000--1966)
 SPECIAL PROVISION "PARTNERING" (000--2329)
 SPECIAL PROVISION "NOTICE OF CHANGES TO U.S. DEPARTMENT OF LABOR
 REQUIRED PAYROLL INFORMATION" (000--1483)
 SPECIAL PROVISION "SCHEDULE OF LIQUIDATED DAMAGES" (000--2332)
 SPECIAL PROVISION "IMPORTANT NOTICE TO CONTRACTORS" (000--2451)
 SPECIAL PROVISION TO ITEM 1 (001---015)
 SPECIAL PROVISION TO ITEM 2 (002---017)
 SPECIAL PROVISION TO ITEM 3 (003---033)
 SPECIAL PROVISION TO ITEM 4 (004---017)
 SPECIAL PROVISION TO ITEM 5 (005---004)
 SPECIAL PROVISION TO ITEM 6 (006---030)
 SPECIAL PROVISION TO ITEM 7 (007---918)
 SPECIAL PROVISIONS TO ITEM 8 (008---007)(008---119)
 SPECIAL PROVISIONS TO ITEM 9 (009---009)(009---015)
 SPECIAL PROVISION TO ITEM 100 (100---002)
 SPECIAL PROVISION TO ITEM 161 (161---006)
 SPECIAL PROVISION TO ITEM 164 (164---002)
 SPECIAL PROVISION TO ITEM 166 (166---001)
 SPECIAL PROVISION TO ITEM 247 (247---033)
 SPECIAL PROVISION TO ITEM 260 (260---003)
 SPECIAL PROVISION TO ITEM 275 (275---003)
 SPECIAL PROVISION TO ITEM 300 (300---039)
 SPECIAL PROVISION TO ITEM 302 (302---010)
 SPECIAL PROVISION TO ITEM 316 (316---016)

SPECIAL PROVISION TO ITEM 318 (318---010)
 SPECIAL PROVISION TO ITEM 330 (330---001)
 SPECIAL PROVISION TO ITEM 340 (340---003)
 SPECIAL PROVISION TO ITEM 360 (360---003)
 SPECIAL PROVISION TO ITEM 420 (420---002)
 SPECIAL PROVISION TO ITEM 421 (421---035)
 SPECIAL PROVISION TO ITEM 431 (431---001)
 SPECIAL PROVISION TO ITEM 440 (440---006)
 SPECIAL PROVISION TO ITEM 441 (441---007)
 SPECIAL PROVISION TO ITEM 442 (442---016)
 SPECIAL PROVISION TO ITEM 464 (464---006)
 SPECIAL PROVISION TO ITEM 476 (476---003)
 SPECIAL PROVISION TO ITEM 500 (500---005)
 SPECIAL PROVISION TO ITEM 502 (502---033)
 SPECIAL PROVISION TO ITEM 506 (506---010)
 SPECIAL PROVISION TO ITEM 530 (530---004)
 SPECIAL PROVISION TO ITEM 560 (560---001)
 SPECIAL PROVISION TO ITEM 636 (636---014)
 SPECIAL PROVISION TO ITEM 643 (643---001)
 SPECIAL PROVISION TO ITEM 672 (672---034)
 SPECIAL PROVISION TO ITEM 685 (685---014)
 SPECIAL PROVISION TO ITEM 687 (687---004)
 SPECIAL PROVISION TO SPECIAL SPECIFICATION ITEM 8251 (8251--005)

SPECIAL SPECIFICATIONS:

 ITEM 3224 DENSE-GRADED HOT-MIX ASPHALT (QC/QA) (300)(301)(320)(520)
 (585)
 ITEM 5049 BIODEGRADEABLE EROSION CONTROL LOGS (161)(506)
 ITEM 6834 PORTABLE CHANGEABLE MESSAGE SIGN
 ITEM 8094 MOBILE RETROREFLECTIVITY DATA COLLECTION FOR PAVEMENT
 MARKINGS
 ITEM 8251 REFLECTORIZED PAVEMENT MARKINGS WITH RETROREFLECTIVE
 REQUIREMENTS (316)(318)(502)(677)(678)(8094)

GENERAL: THE ABOVE-LISTED SPECIFICATION ITEMS ARE THOSE UNDER WHICH
 ----- PAYMENT IS TO BE MADE. THESE, TOGETHER WITH SUCH OTHER
 PERTINENT ITEMS, IF ANY, AS MAY BE REFERRED TO IN THE ABOVE-
 LISTED SPECIFICATION ITEMS, AND INCLUDING THE SPECIAL
 PROVISIONS LISTED ABOVE, CONSTITUTE THE COMPLETE SPECIFI-
 CATIONS FOR THIS PROJECT.